

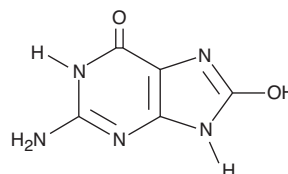
Product Information



8-hydroxy Guanine

Catalog No. 89290

Formal Name:	2-amino-1H-purine-6,8-dione
Synonyms:	8-Oxoguanine, 2-Amino-6,8-dihydroxy purine
MF:	C ₅ H ₅ N ₅ O ₂
FW:	167.1
Purity:	≥90% (contains <10% acetic acid)
Stability:	≥1 year at room temperature
Supplied as:	A crystalline solid
UV/Vis.:	λ _{max} : 284 nm



Laboratory Procedures

For long term storage, we suggest 8-hydroxy guanine be stored as supplied at room temperature. It will be stable for at least one year.

8-hydroxy Guanine is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For greater aqueous solubility, 8-hydroxy guanine can be directly dissolved in 2 M Na₂CO₃ (1 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

8-hydroxy Guanine is produced by oxidative degradation of DNA by hydroxyl radical.¹⁻³ It serves as a measure of oxidative stress in biological systems.^{1,2}

References

1. Spencer, J.P.E., Jenner, A., Chimel, K., *et al.* DNA strand breakage and base modification induced by hydrogen peroxide treatment of human respiratory tract epithelial cells. *FEBS Lett.* **374**, 233-236 (1995).
2. Jaruga, P., Zastawny, T.H., Skokowski, J., *et al.* Oxidative DNA base damage and antioxidant enzyme activities in human lung cancer. *FEBS Lett.* **341**, 59-64 (1994).
3. Zastawny, T.H., Altman, S.A., Randers-Eichhorn, L., *et al.* DNA base modifications and membrane damage in cultured mammalian cells treated with iron ions. *Free Radic. Biol. Med.* **18**, 1013-1022 (1995).

Related Products

8-hydroxy Guanosine - Cat. No. 89300 • 8-hydroxy-2-deoxy Guanosine - Cat. No. 89320

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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